

# **Federal Air Quality Update**



**Scott Davis, US EPA - Region 4  
Environmental Show of the South  
Chattanooga, TN - May 17, 2018**



# Today's Topics

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## **Federal Air Program Update**

- National Ambient Air Quality Standards (NAAQS) Overview
- 2015 Ozone NAAQS
- 2010 Sulfur Dioxide (SO<sub>2</sub>) NAAQS
- Nonattainment areas in the Southeast
- Regional Haze and Exceptional Events

## **NSR and Title V Permitting**

## **EPA Voluntary Programs**

- Asthma; Advance; Southeast Diesel Collaborative

## **Questions**



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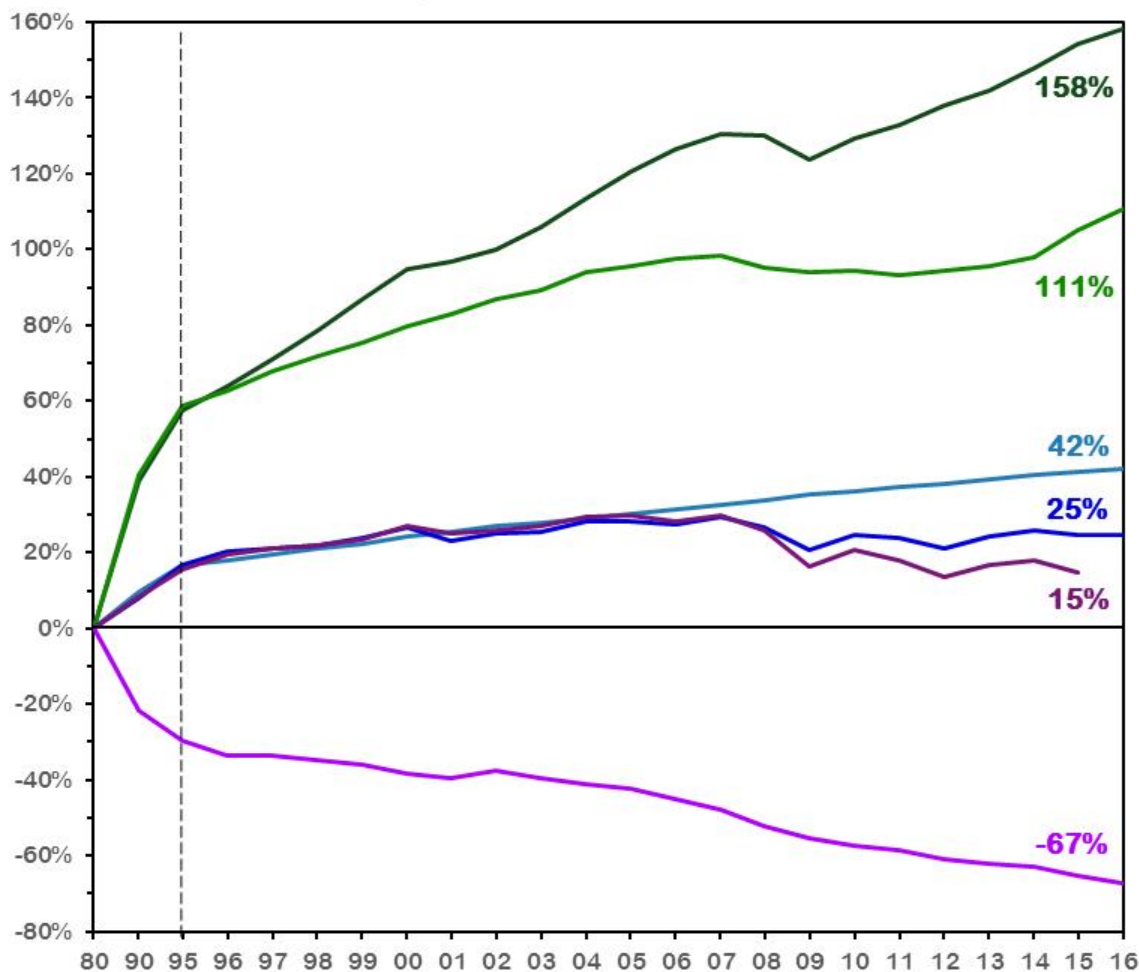
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*Kimberly Bingham*



# Comparison of Growth vs Emissions

## Comparison of Growth Areas and Emissions, 1980-2016





# Progress on NAAQS Implementation

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- Progress on Ozone and fine Particulate Matter ( $PM_{2.5}$ ) Attainment in Region 4
- Current Region 4 Nonattainment Areas (all NAAQS Pollutants)
- 2015 Ozone Designations Process
- 2010  $SO_2$  Designations Process





## Basic NAAQS Information

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- The Clean Air Act requires EPA to issue designations after a new or revised NAAQS is set.
- EPA designates areas as:
  - “Nonattainment – not meeting the standards or contributing to a nearby area that does not meet the standards.
  - “Unclassifiable” – available monitoring data is not sufficient to make a determination.
  - “Attainment/Unclassifiable” – meeting the standard and not contributing to a violation of the standard.
- Nonattainment areas are required to take steps to control pollution.
- State and local governments detail these steps to demonstrate how they will meet air quality standards in State Implementation Plans (SIPs).



## Progress on Ozone and PM<sub>2.5</sub> Attainment in Region 4

OZONE	1997 NAAQS (2004 Designations)	2008 NAAQS (2012 Designations)
Initial Nonattainment Areas	14	5
Areas Redesignated to Attainment	14	5
Current Nonattainment Areas	0	0

PM <sub>2.5</sub>	1997 PM <sub>2.5</sub> NAAQS (2005 Designations)	2006 PM <sub>2.5</sub> NAAQS (2009 Designations)	2012 PM <sub>2.5</sub> NAAQS (2015 Designations)
Initial Nonattainment Areas	11	2	0
Areas Redesignated to Attainment	11	2	0
Current Nonattainment Areas	0	0	0



## 2015 Ozone Designations Process

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- **October 1, 2015:** EPA revised primary 8-hour Ozone NAAQS (70 ppb)
- Final designations required within 2 years after NAAQS promulgation (Administrator has discretion to extend the deadline by one year to collect sufficient information)
  - State and Tribal Recommendations submitted to EPA by October 1, 2016
- **November 6, 2017:** Consistent with the states' and tribes' recommendations, EPA designates most of the U.S. as "attainment/unclassifiable" for the 2015 ozone standards
- **December 22, 2017:** EPA responds to state and tribal recommendations by indicating the anticipated area designations for the remaining portions of the U.S.; kicked-off a 120 day period for states to provide additional information to EPA before final decisions by the EPA Administrator.



## 2015 Ozone Designations Process (continued)

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- **April 30, 2018:** EPA completed final area designations for the remaining portions of the US (except for San Antonio, TX by July 17, 2018).
- 3 areas in Region 4 were designated as ozone nonattainment areas:
  - Atlanta, GA – 7 counties (Bartow, Clayton, Cobb, Dekalb, Fulton, Gwinnett, Henry)
  - Northern KY/Cincinnati – 3 partial counties (Boone, Campbell, Kenton), plus 4 counties in OH
  - Louisville, KY – 3 counties (Bullitt, Jefferson, Oldham), plus 2 counties in IN
- 1 area in Region was designated as unclassifiable:
  - Jacksonville, FL – 1 county (Duval)
- These final designations will take effect 60 days after publication of this notice in the Federal Register.



## 2010 SO<sub>2</sub> Designations Process

**Round 1: Completed August 2013** – EPA Region 4 designated 5 areas nonattainment based on existing monitors violating the standard\*

**Round 2: Completed June 30 and November 29, 2016**  
– EPA designated 65 areas in 24 states based on air dispersion modeling and 2013-2015 violating monitors (6 areas designated in Region 4)

**Round 3: Completed December 21, 2017 and March 28, 2018** – EPA completed an additional round of designations for all remaining undesignated areas except where states have deployed new monitoring networks by January 1, 2017 if executed under the SO<sub>2</sub> Data Requirements Rule (DRR); one new area was designated nonattainment

**Round 4: By December 31, 2020** – EPA must complete designations for all remaining areas (based on 2017-2019 monitoring data)

### Rounds 1-3

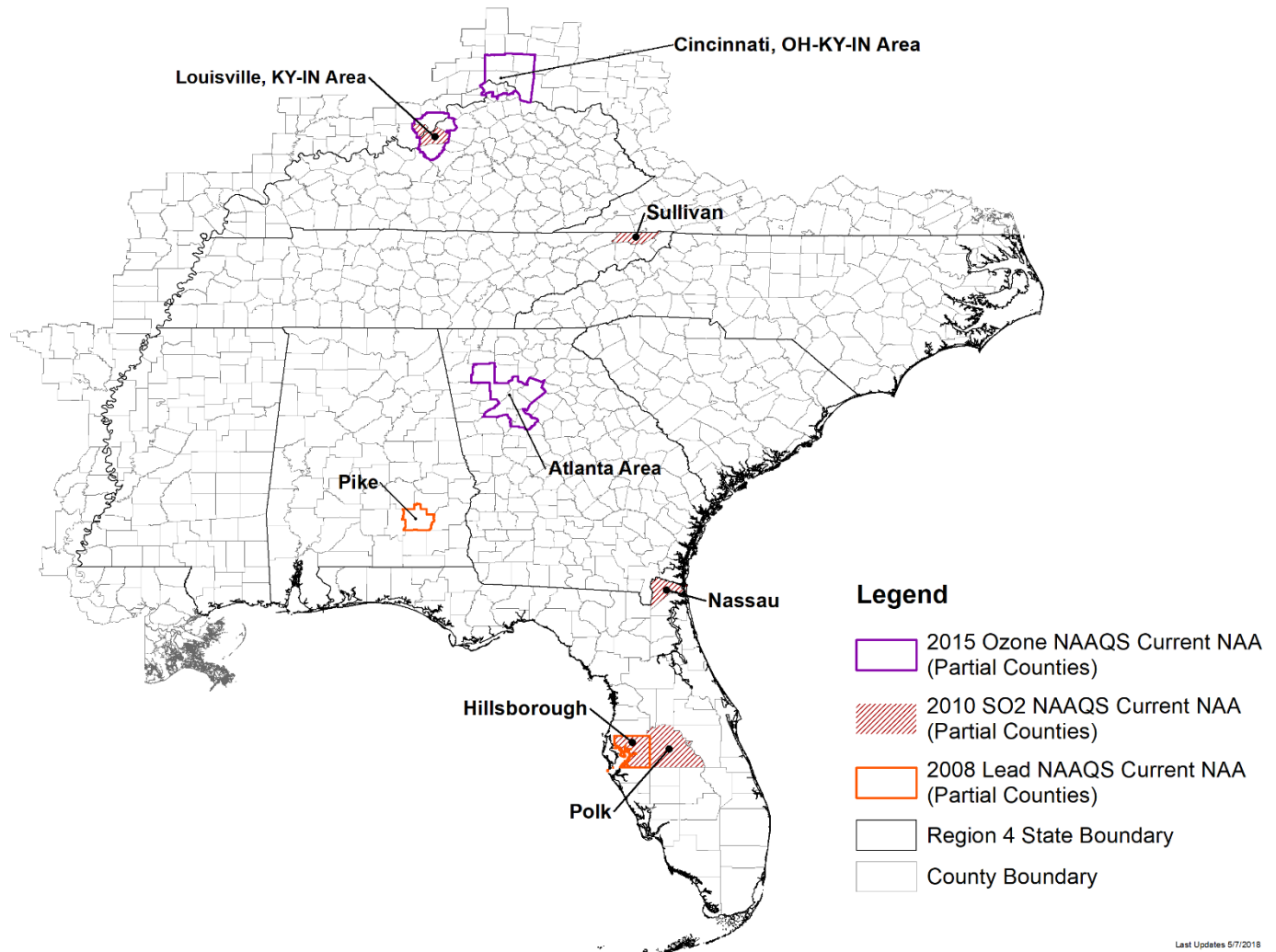
EPA currently has five areas designated as nonattainment in three States in Region 4 (FL, KY and TN)

[www.epa.gov/so2-pollution/applying-or-implementing-sulfur-dioxide-standards](http://www.epa.gov/so2-pollution/applying-or-implementing-sulfur-dioxide-standards)

\*one of the five has been redesignated to attainment (Campbell County, KY)



# Current R4 Nonattainment Areas (all NAAQS Pollutants)

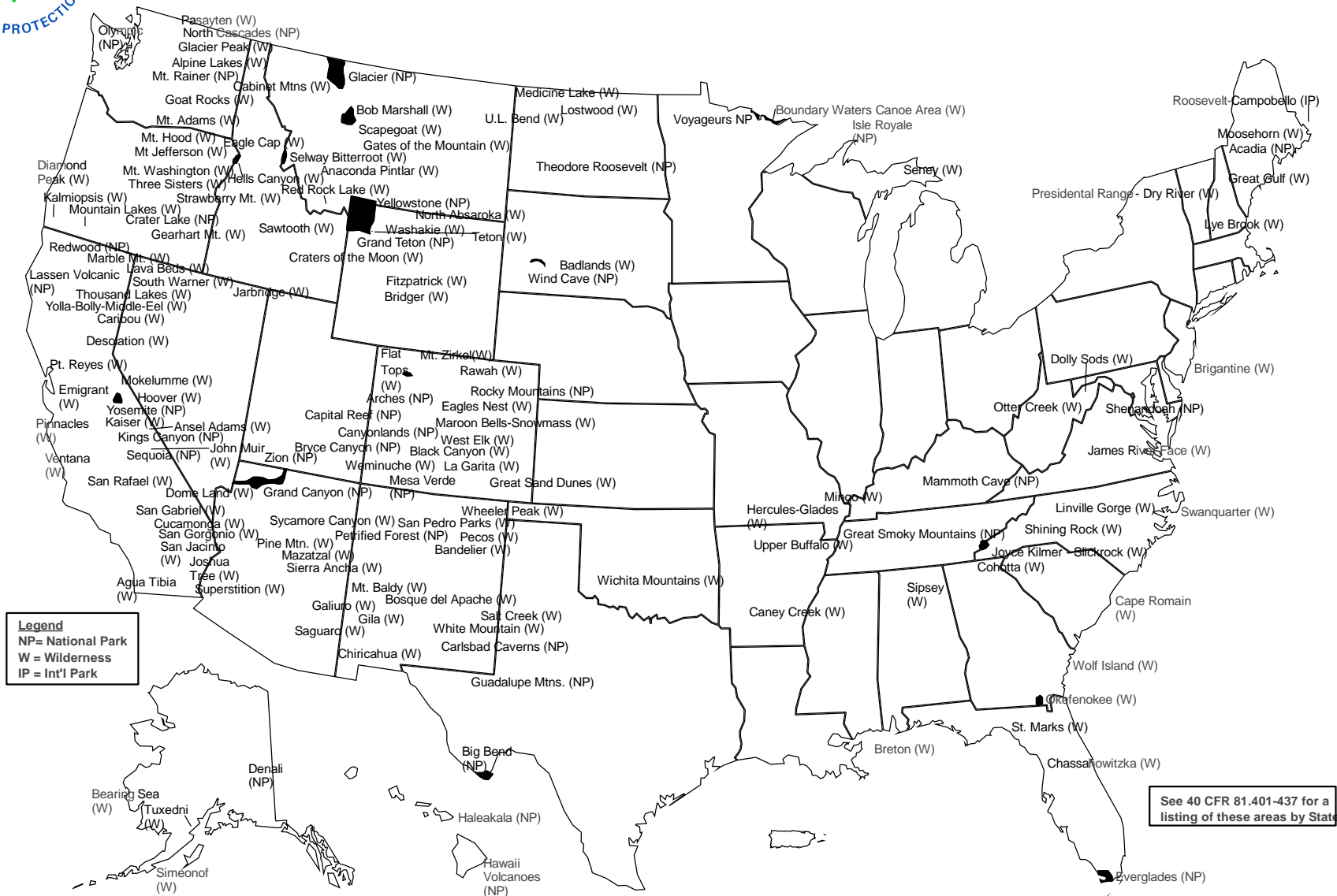




# Regional Haze Overview

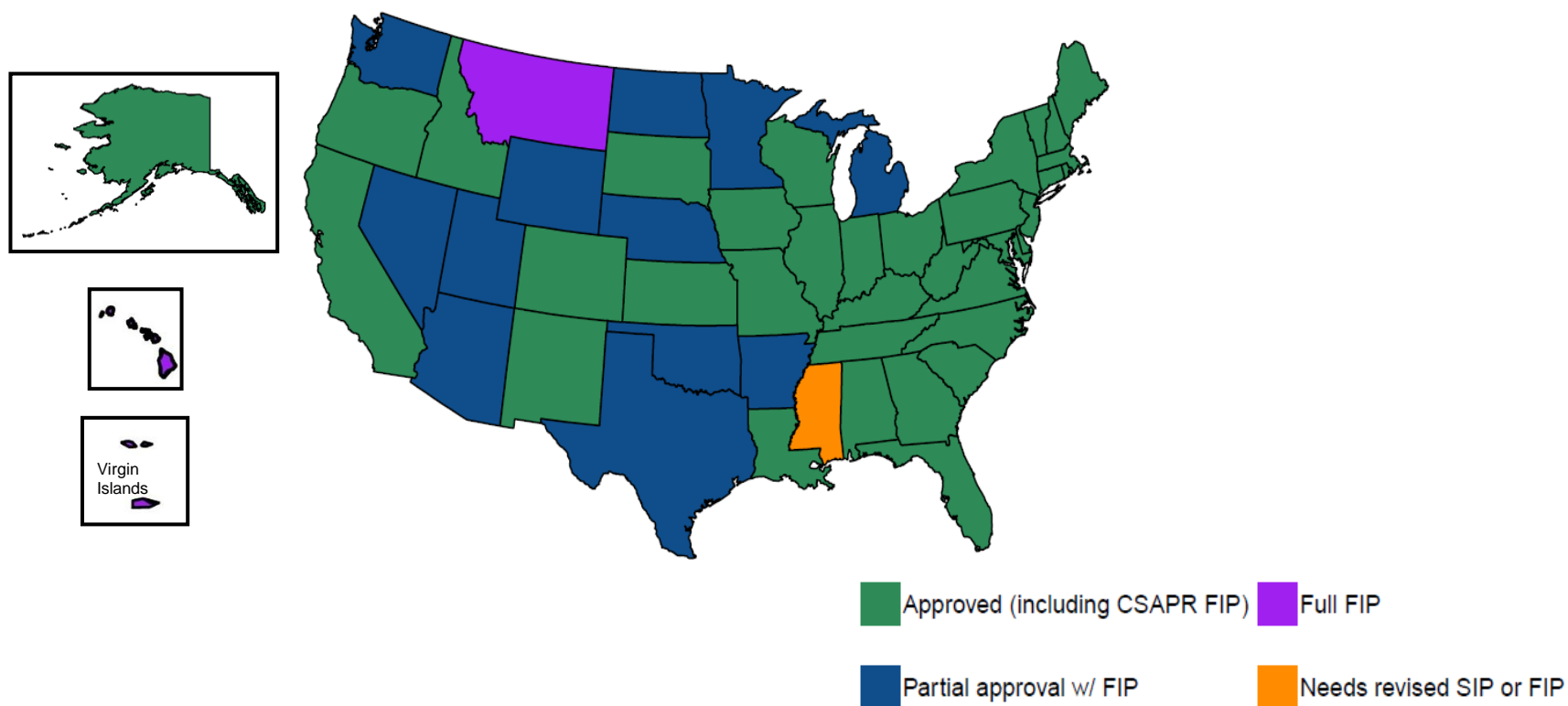
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- Regional Haze is visibility impairment (color, clarity, contrast, viewing distance) caused by air pollutants from numerous sources located over a wide geographic area.
- Particles and gases absorb and scatter light—impairs visibility
- The Clean Air Act established visibility protection provisions for federal Class I areas (e.g., national parks and wilderness areas meeting certain criteria).
- EPA regulations set a goal to reach natural visibility conditions (i.e., no manmade visibility impairment) in the 156 federal Class I areas in the U.S
- States are required to submit plans to address regional haze in their Class I areas and areas they impact.
  - The first regional haze plans were due December 17, 2007.
  - The next regional haze plans are due July 31, 2021.
  - Progress reports are required in between the plan due dates.



**Map of 156 Mandatory Class I Federal Areas**

# Regional Haze: Status of Actions from First Implementation Period





# Regional Haze Rule and Guidance Updates

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- **Rule revisions were finalized on January 10, 2017 (82 FR 3078):**
  - Petitions for review were filed in the D.C. Circuit as well as petitions for reconsideration
  - On January 17, 2018, EPA announced its decision to revisit aspects of the 2017 rule revisions:
    - “EPA intends to commence a notice-and-comment rulemaking in which we will address portions of the rule, including but not limited to the Reasonably Attributable Visibility Impairment (RAVI) provisions, the provisions regarding Federal Land Manager (FLM) consultation, and any other elements of the rule we may identify for additional consideration. Furthermore, EPA plans to finalize one or more EPA guidance documents for regional haze State Implementation Plan (SIP) revisions due in 2021. Such guidance may also address some or all of the issues raised in the petitions for reconsideration.”
  - EPA asked the D.C. Circuit to place the litigation into abeyance “pending administrative proceedings that may result in changes or clarifications to the challenged rule and thereby potentially narrow the scope of this litigation;” motion granted January 30, 2018
- **On July 8, 2016 (81 FR 44608), EPA released draft guidance**
  - Next steps on guidance are expected to be developed as EPA initiates regulatory review of the 2017 rule revisions



# Regional Haze Second Implementation Period

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- EPA is already working with states and groups of states on the second planning period
- Key principles for implementation of the second planning period include:
  - Ensuring that states have the information they need to develop approvable regional haze plans
  - Ensuring that states have discretion and flexibility to select sources for reasonable progress analysis
  - Ensuring that we are on a path that enables compliance with the Clean Air Act, improved visibility in Class I areas, and state discretion regarding whether and how to control sources of visibility-impairing pollutants



# Exceptional Events Rule

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- Exceptional events are unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that tribal, state or local air agencies may implement in order to attain and maintain the National Ambient Air Quality Standards.
- Exceptional events include wildfires (i.e. Gatlinburg, Tenn.), stratospheric ozone intrusions, and volcanic and seismic activities (i.e.; Kilauea, Hawaii).
- On September 16, 2016, EPA finalized revisions to the 2007 Exceptional Events Rule to establish criteria and procedures for use in determining if air quality monitoring data has been influenced by exceptional events.





## 2016 Exceptional Events Rule Implementation

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- Since finalizing the 2016 rule, EPA has concurred on ozone demonstrations for CT, MA, MD, NJ, PA, RI, TX, Ute Tribe (Utah), and Washoe County (Nevada).
- EPA is focused on continuous improvement by engaging with stakeholders, addressing concerns, and streamlining the process.
- We are hopeful that many of the things we are already doing or working to implement under the revised rule are addressing existing concerns such as ensuring timely review processes, right-sizing demonstrations, fostering national consistency, and providing additional resources like updated FAQs and technical guidance documents.



# Exceptional Events: Additional Resources and Engagement to Improve the Process

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- EPA resources now available online – Search “EPA Exceptional Events”
  - Wildfire-Ozone Guidance
  - 2007-to-2016 Rule Crosswalk
  - Best Practices for Multi-State Exceptional Events Demonstrations
  - Mitigation Plan Checklist
  - Example Demonstrations
- Additional implementation documents planned for this year
  - Updated FAQs
  - Updated High Winds
  - Stratospheric Ozone Intrusion
  - Prescribed Fire-Ozone
  - Alternate Paths for Data Exclusion
- EPA developing national electronic tracking system for exceptional events (similar to SPeCS for SIPs)



# NSR Improvements and Other Recent Actions

- Actual-to-Projected-Actual Applicability Test Guidance Memorandum
- Project Emissions Accounting Memo
- Project Emissions Accounting Rulemaking
- Source Aggregation Guidance
- Project Aggregation Reconsideration
- Ambient Air Guidance
- Rulemaking on Treatment of Biomass for Permitting
- PM<sub>2.5</sub> and Ozone SILs Guidance
- Routine Maintenance, Repair and Replacement (RMRR)
- Once-In-Always-In



# NSR Updates: Actual-to-Projected-Actual Applicability Test Guidance Memorandum

- **Memorandum: “New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability”** signed by Administrator Pruitt on December 7, 2017
  - Available at [https://www.epa.gov/sites/production/files/2017-12/documents/policy\\_memo.12.7.17.pdf](https://www.epa.gov/sites/production/files/2017-12/documents/policy_memo.12.7.17.pdf)
  - Where a source projects an insignificant emissions increase, the level of actual emissions after the project governs applicability
  - Projections may reflect the intent to actively manage post-project operations in order to prevent a significant emissions increase from occurring
  - EPA will not second guess NSR applicability analyses that comply with the procedural requirements of the regulations



# Project Emissions Accounting (Project Netting) Guidance Memorandum and Proposal

- **Memorandum: “Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program”** was published on March 30, 2018 (83 FR 13745)
  - Available at [www.gpo.gov/fdsys/pkg/FR-2018-03-30/pdf/2018-06430.pdf](http://www.gpo.gov/fdsys/pkg/FR-2018-03-30/pdf/2018-06430.pdf)
  - Communicates EPA’s interpretation that the current NSR regulations provide that emissions decreases as well as increases are to be considered at Step 1 of the NSR applicability process, i.e., determining whether a project will result in a significant emissions increase
  - Interpretation is grounded in the principle that the plain language of the CAA indicates that Congress intended to apply NSR to changes that increase actual emissions and the language in the corresponding NSR regulations is consistent with that intent
- Prior EPA guidance had indicated that the relevant provisions of the NSR regulations preclude the consideration of emissions decreases at Step 1
  - For the reasons discussed in the memo, EPA will no longer apply such interpretation
- A proposal will codify the considerations and interpretations reflected in the memorandum
  - Current schedule: Fall 2018



# Source Aggregation

- **EPA defines “stationary source” in the permitting programs as all of the pollutant-emitting activities that are:**
  - located on one or more contiguous or adjacent properties *and*
  - are under common control of one person (or persons under common control), *and*
  - belong to the same major industrial grouping (2 digit SIC code) [40 CFR 70.2 and 52.21(b)(1) and (5)]
- **EPA’s interpretation of “adjacent” has evolved through source-specific determinations**
  - 2016 Rulemaking clarified “adjacent” for oil and gas operations
    - Adjacent operations are limited to those within ¼ mile with shared equipment
- **EPA’s determinations of whether “common control” exists have been based on an assessment of multiple factors**
  - We are evaluating whether/how to further refine the factors that must be assessed
- **EPA intends to address “adjacent” and “common control” in upcoming actions**



# Project Aggregation Reconsideration

- 2009 Rule for Project Aggregation
  - Established “substantially related” criterion for aggregating projects, and a 3-year rebuttable presumption against aggregating
  - Did not amend the CFR text (definition of “project”), considered an interpretive rule
  - Calling it a “new interpretation” of the rule text, it only applies prospectively
- Reconsideration and Stay of the 2009 Rule
  - NRDC petitioned for reconsideration and sued EPA on the 2009 Rule
  - EPA granted reconsideration and stayed the effectiveness of the 2009 Rule pending completion of the reconsideration or litigation
  - In 2010, EPA proposed reconsideration with a preference to revoke 2009 Rule
- Current Action – Final Reconsideration Rule
  - Current schedule: Summer 2018



# Ambient Air Guidance

- EPA defines “*ambient air*” as “that portion of the atmosphere, external to buildings, to which the general public has access” (40 CFR 50.1(e))
  - EPA’s longstanding policy for implementing ambient air for PSD purposes was stated in a 1980 Costle letter, “*the atmosphere over land that is owned or controlled by the source and to which public access is precluded by a fence or other physical barriers*”
  - Subsequent guidance provided over the years by EPA to recommend how to apply 1980 policy statement for specific situations
- We are evaluating several key terms associated with the definition including: “general public”, “access” and “building” to determine where additional flexibility may be appropriate
- EPA is anticipating issuing guidance in Spring 2018



# Treatment of Biogenic CO<sub>2</sub> Emissions in Permitting

- **On February 13, 2018, EPA issued a response to New Hampshire reflecting its current views on the programmatic treatment of biomass**
  - <https://www.epa.gov/air-and-radiation/policy-update-epa-programmatic-treatment-biomass-and-forest-products-industry>
- The letter clarifies, among other things, that:
  - The Consolidated Appropriations Act of 2017 urges the proactive recognition of forest biomass as being both carbon neutral and a source of renewable energy
  - Spurred by this congressional action, EPA is engaged in a multi-agency effort with DOE and USDA to establish a mechanism for federal cooperation and consistency on the use of biomass for energy throughout the federal government
  - EPA will be developing a set of options consistent with the carbon neutral policy of biomass from forests and other lands sectors to provide certainty for the treatment of biomass throughout the Agency's permitting decisions
- **On April 23, 2018, EPA issued a policy statement that in forthcoming regulatory actions it will treat biogenic CO<sub>2</sub> emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral**
  - Does not directly address the treatment of biogenic CO<sub>2</sub> emissions at any particular stationary source or in any specific regulatory context or other EPA program.
  - These changes will be accomplished through the appropriate mechanisms, including, as necessary, a notice of any proposed rulemaking, the basis for such changes, and an opportunity for public comment
- **EPA is in the process of developing a set of options for application of the newly announced policy to the CAA permitting programs**



# PM<sub>2.5</sub> and Ozone SILs Guidance

- **Guidance on Significant Impact Levels (SILs) for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program** signed on April 17, 2018, by Office of Air Quality Planning and Standards Director Peter Tsirigotis.
- Includes both a revised PM<sub>2.5</sub> SIL and new ozone SIL for permittees to use in streamlining the air dispersion modeling permitting process.
- The guidance is comprised of a policy memorandum, a technical document and legal support document.
  - All three will be referenced and included in any permit record where the recommended SILs are used by a permitting authority.
  - The guidance is not a final agency action and is not binding for industry, permitting authorities, or the public.



# Routine Maintenance, Repair and Replacement

- EPA believes there is uncertainty regarding the interpretation of the Routine Maintenance, Repair and Replacement (RMRR) provisions in the New Source Review program
- EPA is evaluating the need to clarify the interpretation and appropriate application of the RMRR provision under the NSR regulations
- EPA anticipates clarification in mid-2018



# Once In Always In Policy

- **EPA Withdraws “Once In Always In” Policy**

- On January 25, 2018, EPA issued guidance memorandum, “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act.”
- Addresses when a major source subject to a maximum achievable control technology (MACT) standard, under section 112 of the Clean Air Act (CAA), may be reclassified as an area source and no longer subject to MACT requirements.
- Discusses EPA’s plain language reading of the statutory terms “major source” and “area source.”
- Withdraws 1995 John Seitz memo on “Once In Always In” policy, which required major sources to limit potential to emit to below the major source threshold by the first compliance date to be treated as an area source.
- Responds to comments received in response to E.O. 13777 and 13783 on the need to revise 1995 OIAI policy.



# Once In Always In Policy

- **Background**

- In 2007, EPA proposed a rule to replace the OIAI policy
- [National Emission Standards for Hazardous Air Pollutants: General Provisions](#)
- EPA has never taken final action on this 2007 proposal

- **Next Steps**

- EPA intends to issue a FR Notice to take comment on regulatory text to implement EPA's plain language reading of statute as discussed in January 2018 guidance memorandum

- **Litigation**

- On March 26, 2018, coalition of environmental groups filed a petition for review in the D.C. Circuit Court
- On April 9, 2018, the State of California filed a petition for review in the D.C. Circuit Court

- **For More Information**

- <https://www.epa.gov/stationary-sources-air-pollution/reclassification-major-sources-area-sources-under-section-112-clean>



# Title V Petitions

- Rulemaking in Progress
  - [Revisions to the Petition Provisions of the Title V Permitting Program](#)
  - Proposes to streamline and clarify processes related to the submittal and review of title V petitions
- Title V Petitions continue to be a substantial work load for EPA HQ and Regions
  - Petitions Resolved FY 2018 (to date nationally) – 25
    - 15 Orders (TVA Gallatin final order on January 30, 2018)
    - 10 Resolved by other means (petitioners agreed to withdraw, previous responses identified)
- [PacifiCorp Energy Hunter Power Plant](#) – EPA will not look back at decisions made in NSR permitting process in the context of title V
  - Provided that there was an opportunity for public comment and judicial review
  - Decision being challenged in 10<sup>th</sup> Circuit (Utah) and D.C. Circuit



# MAY is Asthma Awareness Month

- ❖ Asthma is a serious, sometimes life-threatening chronic respiratory disease.
- ❖ More than **23 million** Americans, including an estimated **6 million** children have asthma
- ❖ Although there is no cure for asthma yet, asthma can be controlled through medical treatment and management of environmental triggers
- ❖ More information available at [www.epa.gov/asthma](http://www.epa.gov/asthma)



 **EPA'S ASTHMA PROGRAM**

# Asthma

**24**  
**MILLION**

Americans diagnosed



**1 in 10**  
**CHILDREN**

**\$56**

**BILLION**  
annual costs



**3,600**  
**DEATHS** annually



**75%**  
higher for  
African-Americans  
than  
Caucasians

**13.8**  
**MILLION** missed  
school days per year



**#1**  
reason  
kids miss  
school

**14.2**

**MILLION**  
missed work days per year



**3 in 5**

limit their physical activity  
due to asthma



**71%**  
**MISUSE**  
inhalers



**1 in 5**

**CANNOT**  
**AFFORD**  
medications



## Asthma Triggers



Dust Mites



Pollen



Mold



Cold Air



Exercise



Cockroaches



Pet Dander



Secondhand Smoke

## OUTDOOR AIR POLLUTION

and pollen may irritate asthma



## MONITOR THE AIR QUALITY INDEX



United States  
Environmental Protection  
Agency

[www.epa.gov/asthma](http://www.epa.gov/asthma)

## Smoke Advisory

- Avoid unnecessary outdoor activity.
- Keep windows and doors closed.
- People with heart or lung disease (including asthma), the elderly and children should take extra precaution.



# Advance Program

The Advance Program is a collaborative effort by EPA, states, tribes, and local governments to encourage emission reductions in attainment areas, to help them continue to meet the air quality standards for ozone and PM<sub>2.5</sub>.

## Program Goals:

- Help attainment areas to ensure continued health protection
- Better position areas to remain in attainment
- Efficiently direct available resources toward actions to address ozone and PM<sub>2.5</sub> problems quickly

## Participants in Region 4

SC – entire state  
Catawba Tribe, SC  
Middle GA (including Robins Air Force Base)  
Louisville, KY  
Cumberland County, NC  
(including Fort Bragg)  
Charlotte, NC  
NC – Entire State

## Interest in Joining

Atlanta, GA  
DeSoto, MS

EPA Region 4 contact: Kelly Sheckler 404-562-9222;  
sheckler.Kelly@epa.gov  
<https://www.epa.gov/advance>



# Why Areas Participate in Advance

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## **Program Goals:**

- Lower cost/burden when measures are implemented early
- Multi-pollutant co-benefits & cumulative efforts
- Promotes strategies that are economically and environmentally sensible
- Builds resources
- Keeps areas engaged (resiliency versus reactive)

EPA Region 4 contact: Kelly Sheckler 404-562-9222;  
sheckler.Kelly@epa.gov  
<https://www.epa.gov/advance>



# What Advance Areas Find Most Useful

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## Program Goals:

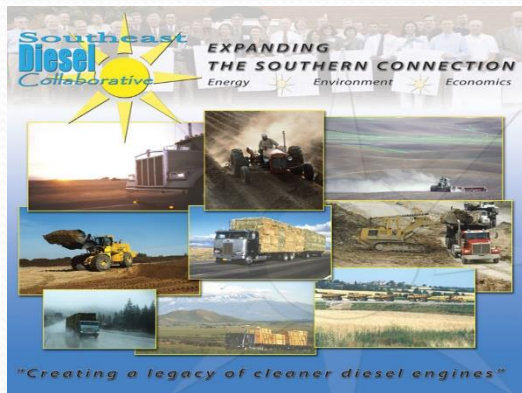
- Connectivity to other programs
- Synergy and Collaboration
- Technical assistance to develop metrics that will appeal to community and demonstrate benefits and leadership
  - Structure makes local action formal
  - Leveraging opportunities
- Annual Region 4 Advance Forum
  - **September 11-13, 2018 in Atlanta**

EPA Region 4 contact: Kelly Sheckler 404-562-9222;  
sheckler.Kelly@epa.gov  
<https://www.epa.gov/advance>



# Southeast Diesel Collaborative

**GOAL: Improve air quality and public health by reducing emissions from existing diesel engines.**





# Southeast Diesel Collaborative (SEDC)

- Voluntary public/private partnership formed in 2006 (part of the National Clean Diesel Campaign), focused on clean diesel opportunities that incorporate Energy, the Environment and Economics
- Diverse Partners from government, industry, state/local groups with the goal of improving air quality and public health by reducing emissions from existing diesel engines
- Annual funding under the Diesel Emissions Reduction Act (DERA), \$75 million in 2018.
- Current National Request for Proposals open until JUNE 12 for competitive grants. Go to [grants.gov](https://www.grants.gov) for more information.



Southeast Diesel Collaborative  
13<sup>th</sup> Annual Partners Meeting  
September 26-27, 2018 in Charleston, SC  
Info/register at [www.southeastdiesel.org](http://www.southeastdiesel.org)



# The Uniformed Services of the United States



**Remember Memorial Day**  
**Monday, May 28, 2018**

QUESTIONS ?

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